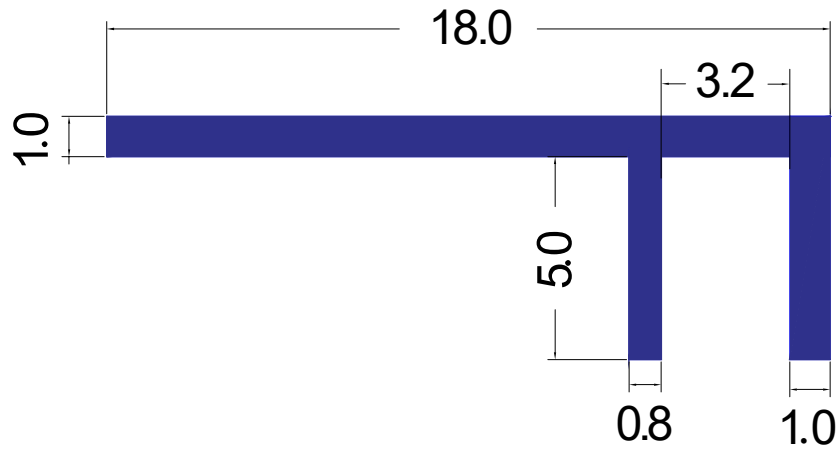
PCB Antenna
Test Equipment:AN4806

1. Electrical Characteristics

No.	Item	Specifications
1	Working Central Frequency	2440 MHz
2	Band Width	±75 MHz (2375～2525MHz)
3	Gain	0~2dbi
4	V.S.W.R (in BW)	2.0
5	Polarization	Linear
6	Azimuth Beam width	Omni-directional
7	Impedance	50

2. Shape of the antenna



Unit:mm tolerance: +/- 0.05

3.Test Results

3.1 Test standard

Name	Parameter	Method	Standard no.
Mobile communication antenna	Antenna gain	Generic specification for antennas used in the mobile communications	GB/T 9410-2008
	Radiation pattern		
	VSWR		
Antenna	Radiation efficiency	IEEE Standard Test Procedures for Antennas	ANSI/IEEE Std 149-1979
	Gain and directivity		

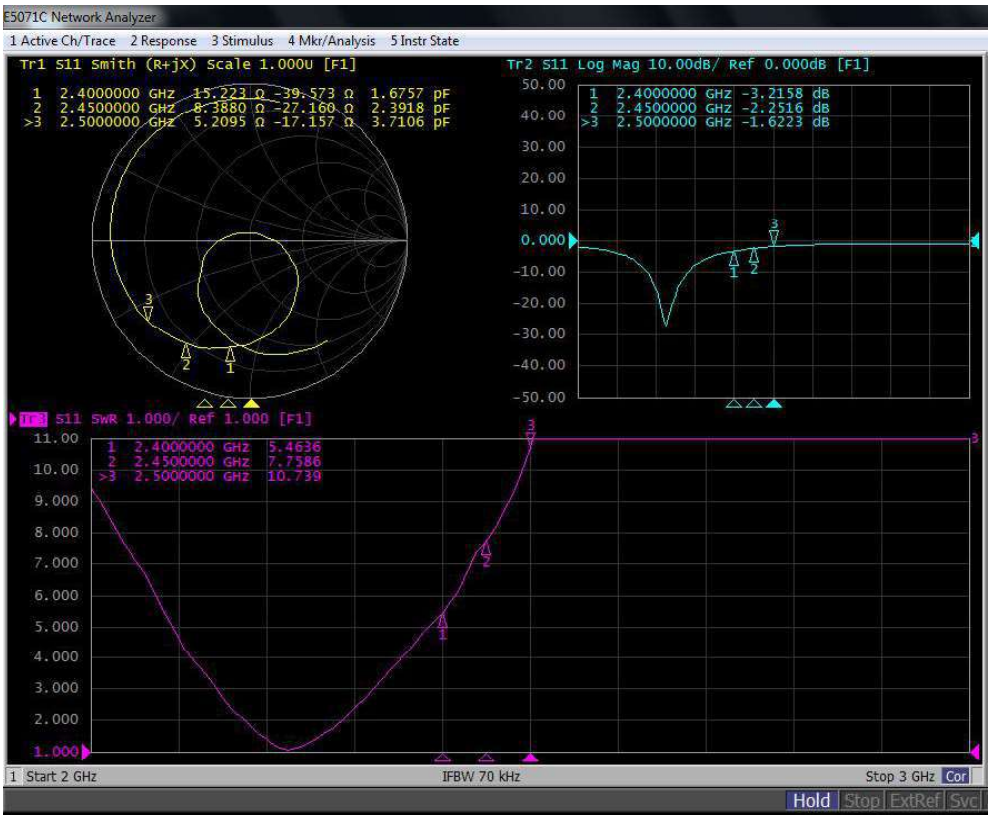
3.2 Test uncertainty

The uncertainty was calculated on the basis of the GUM published by ISO, using the inclusion factor of K=2 and the 95% confidence level to express the extended uncertainty.

Item	Uncertainty
VSWR	±0.3
Antenna gain	±1dB
Radiation efficiency	±10%

3.3 Test data

3.3.1 S11 parameters



3.3.2 VSWR data

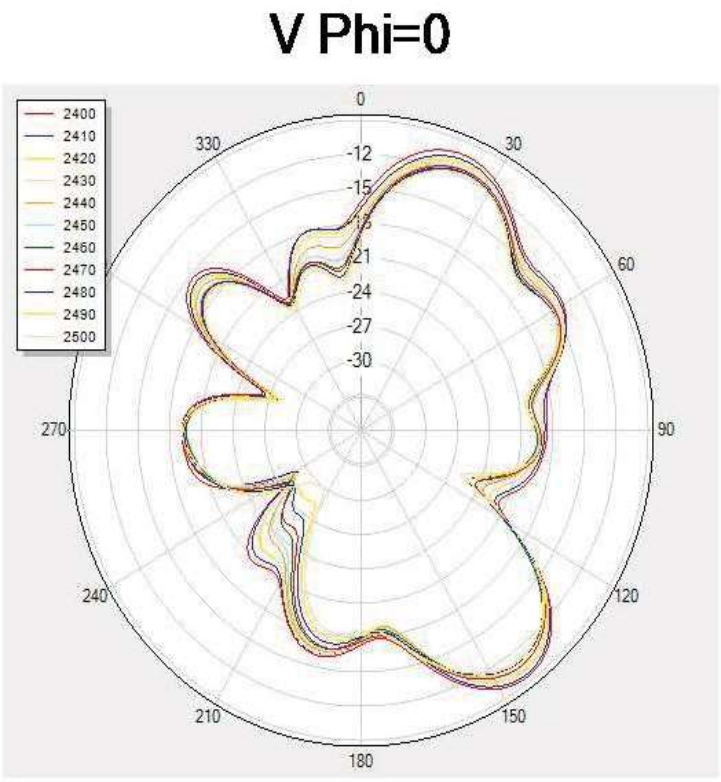
Frequency/MHz	2400	2450	2500
VSWR	5.4636	7.7586	10.739

3.3.3 Typical free space efficiency and gain

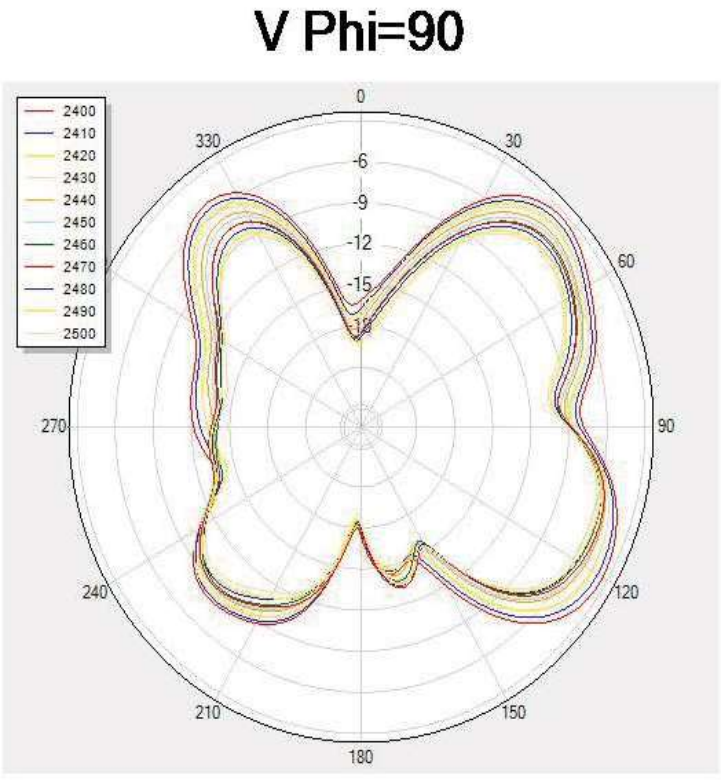
Frequency/MHz	2400	2410	2420	2430	2440	2450	2460	2470	2480	2490	2500
Peak Gain/dBi	-1.95	-2.29	-2.75	-2.76	-3.22	-3.43	-3.76	-3.55	-3.93	-3.95	-4.3
Efficiency/%	16.28	14.94	13.58	13.48	12.01	11.38	10.41	10.69	9.72	9.27	8.65

3.3.4 Typical free space radiation pattern

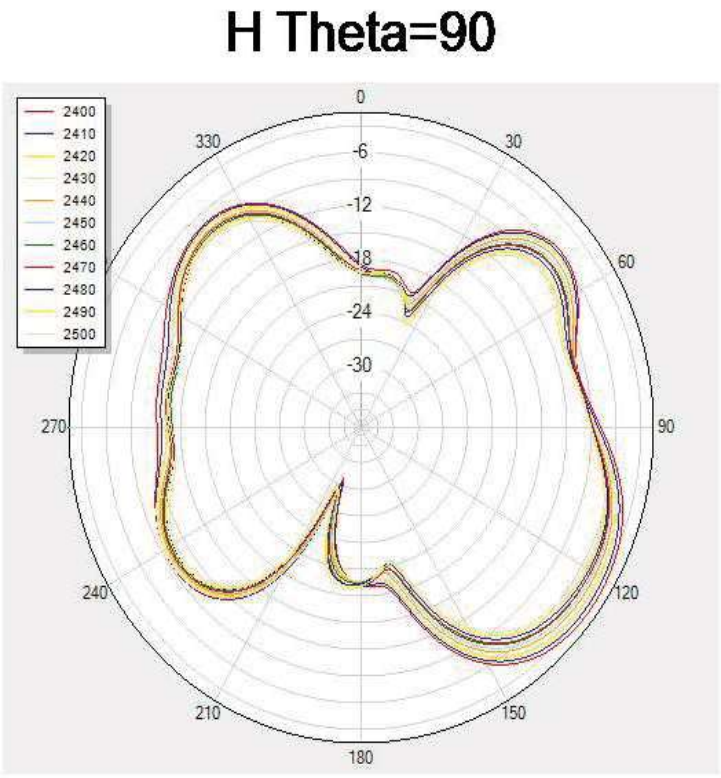
(1) X-Z Plane:



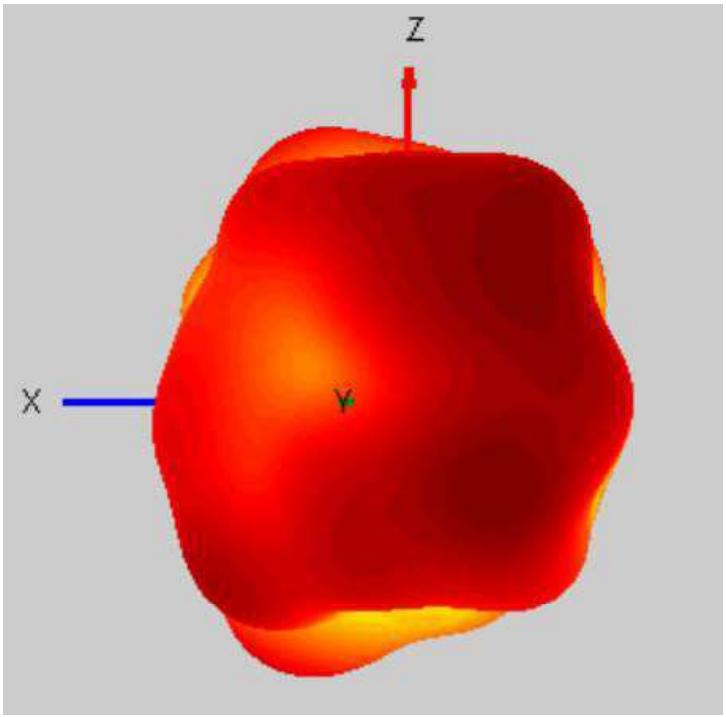
(2) Y-Z Plane:



(3) X-Y Plane:



(4) Typical Free Space 3D Radiation Pattern at 2.45GHz:



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